

ABSTRACT

A virtual ablation electrode assembly includes a non-conductive outer cap fitted over an inner electrode to form a fluid chamber between a cap inner surface and an exterior surface of the electrode. The inner electrode includes an interior fluid trunk and one or more fluid distribution branches extending from the fluid trunk to the exterior surface. A plurality of pores extends between the cap inner surface and a cap outer surface. When the electrode is energized and when fluid is delivered through the one or more fluid distribution branches from the trunk, the conductive fluid fills the fluid chamber and flows out from the chamber through the plurality of pores of the cap establishing ionic transport of ablation energy from the inner electrode to a target site in close proximity to the cap.